

REMARKS

The Examiner has indicated claims 5, 7-11, 18 and 19 as allowable subject matter, if re-written in independent form to incorporate all of the limitations of the base claim and any intervening claims. The applicant appreciates the Examiner's indication of allowable subject matter.

35 USC § 103(a)

The Examiner has rejected claims 1-4, 6, 12-17, and 20-25 under 35 USC 103(a) as being unpatentable over Prakriya et al. (US patent no. 6,154,220) in view of Eick et al. (US patent no. 5,835,085) and further in view of applicant's admitted prior art. Regarding claim 1, the Examiner concedes that Prakriya fails to disclose a plurality of strands wherein each of said plurality of strands corresponds to each of a plurality of relationships. The Examiner then asserts that Eick "specifically discloses" a plurality of strands wherein each of said plurality of strands corresponds to each of a plurality of relationships, citing column 2, lines 38-67; column 7, lines 5-22; and Fig.s 3,4 and 6. The applicant respectfully disagrees.

As taught and shown by the applicant, a connector consisting of a plurality of strands are shown in the visual display, with a gap G between each strand (see Fig. 1, and accompanying description at page 6, lines 24-27. In contrast, Eick combines the strands, showing a single connector (called a "link" by Eick) between nodes (see Fig.s 3 and 6). While Eick may alter the color or and width of the links, the fact remains that Eick uses but a single link between nodes. As such, while each of Eick's links may provide some information concerning the aggregate relationships for all of the stands, since they are combined into a single link, (or connector, to use the applicant's nomenclature), Eick provides no means to visualize the various relationships for each individual strand.

The difference between the present invention and Eick can be further explained thusly. Since Eick relies on the optimization of the clustering of the nodes to provide visual information about a corpus, Eick's invention is primarily

an algorithm for optimizing the clustering of Eick's nodes. While Eick does provide links between these nodes, and does provide some information concerning the relationships of those links with the use of color and width, Eick's focus is not on providing the user a means to visualize the various relationships that might exist in a single link. Eick instead combines all of the strands into a single link. This is not intended to deprecate Eick's method; rather, Eick's method is simply directed at providing different information, and therefore employs a different strategy than the present invention.

The present invention allows the user to visualize the information consolidated by each of Eick's links, because in the present invention, each of the plurality of strands are shown separately. In this manner, information concerning the underlying relationship for each strand is visually segregated from each other strand. Accordingly, Eick does NOT show or suggest the step of "said connector having a plurality of strands wherein each of said plurality of strands corresponds to each of a plurality of relationships." The Examiner has conceded that Prakriya does not show this step, and the Examiner has not asserted that the prior art admitted in the applicant's disclosure does not show this step. As explained above, Eick also lacks this step. Lacking this teaching, the combination of Prakriya and Eick does not, and cannot, provide disclosure necessary to form a prima facie case of obviousness under 35 USC 103(a). "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). Accordingly, the applicant respectfully requests that the Examiner remove the rejection of claim 1 under 35 USC 103(a).

With respect to claim 2, claim 2 is dependent from claim 1 and therefore incorporates all of the limitations of claim 1 by virtue of dependency. Accordingly, claim 2 is distinguished from the combination of Prakriya and Eick, and the prior art admitted in the applicant's disclosure, for the reasons given

above, with respect to claim 1. The applicant would further note that contrary to the Examiner's assertion, Eick does NOT show "at least one of said plurality of strands pass[ing] out of said surface" as Eick does display a visual representation of ANY of the strands, as Eick has combined them into a single link. Accordingly, the applicant respectfully requests that the Examiner remove the rejection of claim 2 under 35 USC 103(a).

With respect to claim 3, claim 3 is dependent from claim 1 and therefore incorporates all of the limitations of claim 1 by virtue of dependency. Accordingly, claim 3 is distinguished from the combination of Prakriya and Eick, and the prior art admitted in the applicant's disclosure, for the reasons given above, with respect to claim 1. The applicant would further note that contrary to the Examiner's assertion, Eick does NOT show "a geometric gap between" each strand. The Examiner cites column 12, lines 25-57 as a reference toward this teaching, however, at this location Eick merely describes the algorithm Eick uses to place nodes, which has NO bearing on the visual representation of ANY of the strands. Further, Eick cannot possibly show a "geometric gap between strands", as Eick has combined them into a single link. Accordingly, the applicant respectfully requests that the Examiner remove the rejection of claim 3 under 35 USC 103(a).

With respect to claim 4, claim 4 is dependent from claim 1 and therefore incorporates all of the limitations of claim 1 by virtue of dependency. Accordingly, claim 4 is distinguished from the combination of Prakriya and Eick, and the prior art admitted in the applicant's disclosure, for the reasons given above, with respect to claim 1. The applicant would further note that contrary to the Examiner's assertion, Prakriya does NOT teach each strand as having an "arc height" as Prakriya does describe the visual representation of ANY of the strands beyond Prakriya's general description of plotting the nodes on a graph. The Examiner cites column 8, lines 25-47 as a reference toward this teaching, stating that "Prakriya discloses the layout surface arc for the nodes." However, a close examination of the relevant description (line 32) reveals that the word "arc" is an obvious typographical error, and should be read as "are." If the sentence is

read using the word "arc," it still does not support the Examiner's position, because the sentence becomes meaningless. Accordingly, the applicant respectfully requests that the Examiner remove the rejection of claim 2 under 35 USC 103(a).

With respect to claim 6, claim 6 is dependent from claim 1 and therefore incorporates all of the limitations of claim 1 by virtue of dependency. Accordingly, claim 6 is distinguished from the combination of Prakriya and Eick, and the prior art admitted in the applicant's disclosure, for the reasons given above, with respect to claim 1. The applicant would further note that contrary to the Examiner's assertion, Prakriya does NOT teach each strand as having "texture" as Prakriya does describe the visual representation of ANY of the strands beyond Prakriya's general description of plotting the nodes on a graph. The Examiner cites Fig. 3 as a reference toward this teaching, stating that "Prakriya discloses records A to H, which contain data or information or texture at each strand of record." However, Fig. 3 merely reveals a dashed line connecting the various records (see also the description of Fig. 3 at column 6, lines 36-48) and makes no reference whatsoever to providing "texture" to those dashed lines. Accordingly, the applicant respectfully requests that the Examiner remove the rejection of claim 2 under 35 USC 103(a).

With respect to claim 12, claim 12 has been cancelled, and rendered rejection moot.

With respect to claim 13, claim 13 is dependent from claim 1 and therefore incorporates all of the limitations of claim 1 by virtue of dependency. Accordingly, claim 13 is distinguished from the combination of Prakriya and Eick, and the prior art admitted in the applicant's disclosure, for the reasons given above, with respect to claim 1. The Examiner again alleges that Eick teaches a plurality of strands, and now cites column 4., lines 29-48 and Figs 3 and 6 as support for this teaching. However, at column 4, lines 29-48, and in Fig. 3, as explained above, Eick collapses all of the strands into a single link, and does NOT show a "plurality" of strands. Accordingly, the applicant respectfully requests that the Examiner remove the rejection of claim 2 under 35 USC 103(a).

With respect to claim 14, claim 14 is dependent from claim 1 and therefore incorporates all of the limitations of claim 1 by virtue of dependency. Accordingly, claim 14 is distinguished from the combination of Prakriya and Eick, and the prior art admitted in the applicant's disclosure, for the reasons given above with respect to claim 1. Accordingly, the applicant respectfully requests that the Examiner remove the rejection of claim 2 under 35 USC 103(a).

With respect to claim 15, claim 15 is dependent from claim 1 and therefore incorporates all of the limitations of claim 1 by virtue of dependency. Accordingly, claim 15 is distinguished from the combination of Prakriya and Eick, and the prior art admitted in the applicant's disclosure, for the reasons given above with respect to claim 1. Accordingly, the applicant respectfully requests that the Examiner remove the rejection of claim 2 under 35 USC 103(a).

With respect to claim 16, claim 16 is dependent from claim 1 and therefore incorporates all of the limitations of claim 1 by virtue of dependency. Accordingly, claim 16 is distinguished from the combination of Prakriya and Eick, and the prior art admitted in the applicant's disclosure, for the reasons given above with respect to claim 1. The Examiner comments that Prakriya "discloses the rectilinear layout system positioning the nodes so that the center node is at the center of the layout surface." However, Claim 16 is not directed towards "positioning the nodes," Claim 16 is directed towards positioning the display. Accordingly, Claim 16 is readily distinguished from Prakriya because while Prakriya may provide a method for positioning the nodes within the display, Prakriya provides no teaching of altering the orientation of the display itself. The applicant therefore respectfully requests that the Examiner remove the rejection of claim 2 under 35 USC 103(a).

With respect to claim 17, claim 17 is dependent from claim 16, which is dependent from claim 1, and therefore incorporates all of the limitations of claims 1 and 16 by virtue of dependency. Accordingly, claim 17 is distinguished from the combination of Prakriya and Eick, and the prior art admitted in the applicant's disclosure, for the reasons given above with respect to claims 1 and 16. The Examiner comments that Eick "teaches positioning is selected from the group

consisting of rotate, pan, zoom and combinations thereof.” In the first instance, Eick does not teach panning, rotating or zooming the display. Eick merely discloses a separate view of a detailed section of Eick’s graph, as opposed to positioning the display. Accordingly, Claim 17 is readily distinguished from Eick because while Eick may provide a method for viewing a detailed section of the display, Eick provides no teaching of altering the orientation of the display itself. The applicant therefore respectfully requests that the Examiner remove the rejection of claim 2 under 35 USC 103(a).

With respect to claim 20, claim 20 is dependent from claim 1 and therefore incorporates all of the limitations of claim 1 by virtue of dependency. Accordingly, claim 20 is distinguished from the combination of Prakriya and Eick, and the prior art admitted in the applicant’s disclosure, for the reasons given above with respect to claim 1. The Examiner comments that Eick “teaches a user action may cause the display of all relationships corresponding to a given relationship type” and asserts that Eick “discloses the user selects a variety of computations, which rearrange the graph so that nodes with significant relationships are grouped together. However, Claim 20 is not directed towards “grouping nodes,” to emphasize or de-emphasize relationships, Claim 20 is directed towards removing the visual representation of selected relationship types in their entirety. Accordingly, Claim 20 is readily distinguished from Eick because while Eick may provide a method for positioning the nodes within the display to emphasize or de-emphasize certain relationships, Eick provides no teaching of removing certain relationship types from the visual display altogether. The applicant therefore respectfully requests that the Examiner remove the rejection of claim 2 under 35 USC 103(a).

With respect to claim 21, claim 21 is dependent from claim 1 and therefore incorporates all of the limitations of claim 1 by virtue of dependency. Accordingly, claim 21 is distinguished from the combination of Prakriya and Eick, and the prior art admitted in the applicant’s disclosure, for the reasons given above with respect to claim 1. The Examiner comments that Prakriya “teaches a directionality of a relationship [as] indicated by line type” and asserts that in Fig.

28. Prakriya “teaches user to display the relationship between record A and Record B to H.” However, in Fig. 7B, Prakriya merely shows a solid black line connecting different boxes. It is thus clear that Fig. 7B does not show different lines types corresponding to different directions in the relationships. Accordingly, Claim 21 is readily distinguished from Eick. The applicant therefore respectfully requests that the Examiner remove the rejection of claim 2 under 35 USC 103(a).

With respect to claim 22, claim 22 is dependent from claim 1 and therefore incorporates all of the limitations of claim 1 by virtue of dependency. Accordingly, claim 22 is distinguished from the combination of Prakriya and Eick, and the prior art admitted in the applicant’s disclosure, for the reasons given above with respect to claim 1. The Examiner comments that Eick “teaches user action may cause the display of either a single strand, aggregate strand, or multitextured strands”, and asserts that this is shown in Figs 3 and 6. As previously argued, Eick in fact only shows an aggregate, and, as such, does not show a single strand or multitextured strands. Accordingly, Claim 22 is readily distinguished from Eick. The applicant therefore respectfully requests that the Examiner remove the rejection of claim 2 under 35 USC 103(a).

With respect to claim 23, claim 23 has been cancelled, and rendered rejection moot.

With respect to claim 24, claim 24 has been cancelled, and rendered rejection moot.

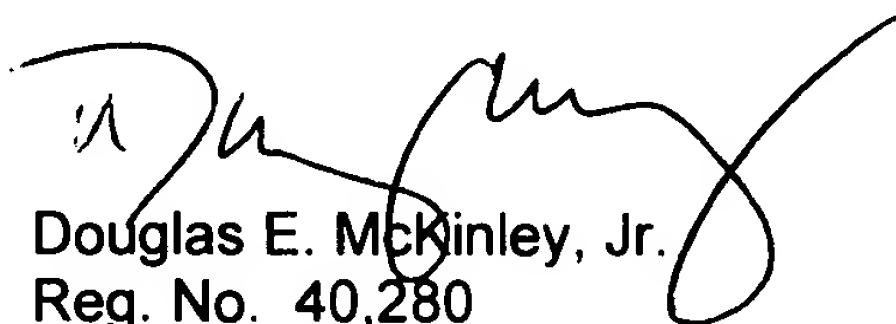
With respect to claim 25, claim 25 is dependent from claim 1 and therefore incorporates all of the limitations of claim 1 by virtue of dependency. Accordingly, claim 25 is distinguished from the combination of Prakriya and Eick, and the prior art admitted in the applicant’s disclosure, for the reasons given above with respect to claim 1. The Examiner comments that Prakriya “teaches mapping by two-way document/topic iteration logic”, and asserts that this is shown in column 14, lines 58-67; and column 19, lines 5-19. The Applicant respectfully disagrees. The Prakriya reference is concerned with mapping information which “defines databases, computer networks, and object based systems.” (see abstract). As such, the Prakriya reference is entirely silent

concerning document/topic relationships, and is entirely lacking any discussion whatsoever concerning two-way document/topic iteration logic. The discussion of iteration in Prakriya referenced by the Examiner is related to a globally specified parameter, the ListofHueristics, that are predetermined parameters to determine the focus mode. In contrast, two-way document/topic iteration logic utilizes no such predetermined parameters. Rather, the parameters are derived from the documents/topics themselves. Accordingly, Claim 25 is readily distinguished from Prakirya. The applicant therefore respectfully requests that the Examiner remove the rejection of claim 2 under 35 USC 103(a).

Closure

Applicant has made an earnest attempt to place the above referenced application in condition for allowance and action toward that end is respectfully requested. Should the Examiner have any further observations or comments, he is invited to contact the undersigned for resolution.

Respectfully submitted,


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